

I claim:

1. A method for reserving advertisement space for a customer in a network billboard system including a network controller in communication with at least one electronic billboard and a storage device, the method comprising:

5 receiving a request to reserve an advertising space via the network controller, the request including a desired one of the at least one electronic billboard a desired start date and a desired contract period;

locating a billboard schedule in the storage device for the desired billboard in accordance with the request;

10 determining whether the desired billboard has an available slot on the desired start date or finding an available slot on a date closest to the desired start date based on the request;

reserving the available slot corresponding to the desired start date or the date closest to the desired start date; and

committing the available slot for the desired contracted period.

2. The method of Claim 1, further comprising notifying the customer that the transaction is confirmed.

3. The method of Claim 1, further comprising processing customer payment information to bill the customer.

4. The method of Claim 1, further comprising identifying market data associated with the customer in accordance with the billboard schedule, and confirming the available slot based on the market data, the market data including information identifying a target group for an advertisement from the customer.

5. The method of Claim 1, further comprising requesting to transfer an advertisement file of the customer to the at least one electronic billboard for display according to the billboard schedule.

6. A system for reserving advertisement space for a customer in a billboard network, the network including a network controller in communication with at least one electronic billboard and a storage device, the system comprising:

means for receiving a request to reserve an advertising space via the network controller, the request including a desired one of the at least one electronic billboard a desired start date and a desired contract period;

means for locating a billboard schedule in the storage device for the desired billboard in accordance with the request;

means for determining whether the desired billboard has an available slot on the desired start date or finding an available slot on a date closest to the desired start date based on the request;

means for reserving the available slot corresponding to the desired start date or the date closest to the desired start date; and

means for committing the available slot for the desired contracted period.

7. The system of Claim 6, further comprising means for notifying the customer that the transaction is confirmed.

8. The system of Claim 6, further comprising means for processing customer payment information to bill the customer.

9. The system of Claim 6, further comprising means for identifying market data associated with the customer in accordance with the billboard schedule, and means for confirming the available slot based on the market data, the market data including information identifying a target group for an advertisement from the customer.

10. The system of Claim 6, further comprising means for requesting to transfer an advertisement file of the customer to the at least one electronic billboard for display according to the billboard schedule.

11. An executable program for reserving advertisement space for a customer in a network billboard system including a network controller in communication with at least one electronic billboard and a storage device, the program comprising:

5 a first source code segment for receiving a request to reserve an advertising space via the network controller, the request including a desired one of the at least one electronic billboard a desired start date and a desired contract period;

a second source code segment for locating a billboard schedule in the storage device for the desired billboard in accordance with the request;

10 a third source code segment for determining whether the desired billboard has an available slot on the desired start date or finding an available slot on a date closest to the desired start date based on the request;

a fourth source code segment for reserving the available slot corresponding to the desired start date or the date closest to the desired start date; and

15 a fifth source code segment for committing the available slot for the desired contracted period.

12. The executable program of Claim 11, further comprising a sixth source code segment for notifying the customer that the transaction is confirmed.

13. The executable program of Claim 11, further comprising a sixth source code segment for processing customer payment information to bill the customer.

14. The executable program of Claim 11, further comprising a sixth source code segment for identifying market data associated with the customer in accordance with the billboard schedule, and a seventh source code segment for confirming the available slot based on the market data, the market data including information identifying a target group
5 for an advertisement from the customer.

15. The executable program of Claim 11, further comprising a sixth source code segment for requesting to transfer an advertisement file of the customer to the at least one electronic billboard for display according to the billboard schedule.

16. The executable program of Claim 11, further comprising a sixth source code segment for processing customer payment information to bill the customer.

17. The executable program of Claim 11 embodied on a computer readable medium.

18. A computer data signal for reserving advertisement space for a customer in a network billboard system including a network controller in communication with at least one electronic billboard and a storage device, the data signal comprising:

a first signal segment for receiving a request to reserve an advertising space via the
5 network controller, the request including a desired one of the at least one electronic
billboard a desired start date and a desired contract period;

a second signal segment for locating a billboard schedule in the storage device for
the desired billboard in accordance with the request;

a third signal segment for determining whether the desired billboard has an available
10 slot on the desired start date or finding an available slot on a date closest to the desired start
date based on the request;

a fourth signal segment for reserving the available slot corresponding to the desired
start date or the date closest to the desired start date; and

a fifth signal segment for committing the available slot for the desired contracted
15 period.

19. The computer data signal of Claim 18, further comprising a sixth signal segment
for notifying the customer that the transaction is confirmed.

20. The computer data signal of Claim 18, further comprising a sixth signal segment
for processing customer payment information to bill the customer.

21. The computer data signal of Claim 18, further comprising a sixth signal segment
for identifying market data associated with the customer in accordance with the billboard

schedule, and a seventh signal segment for confirming the available slot based on the market data, the market data including information identifying a target group for an advertisement
5 from the customer.

22. The computer data signal of Claim 18, further comprising a sixth signal segment for requesting to transfer an advertisement file of the customer to the at least one electronic billboard for display according to the billboard schedule.

23. The computer data signal of Claim 18, further comprising a sixth signal segment for processing customer payment information to bill the customer.

24. A distributed programming method for placing advertisements in a network billboard system including a network controller in communication with at least one electronic billboard, the method comprising;

accessing a schedule table for at least one of the electronic billboards, the table
5 having an identification of customers for time slots over a list of dates;

locating an advertisement file corresponding to the customer identified in a time slot;

transmitting an advertisement signal to the billboard, the advertisement signal indicating a media file for display at the billboard based on the advertisement file
10 corresponding to the time slot; and

upon receipt of a request from a party, providing access to information of goods or services provided by the customer, the access provided to the requesting party.

25. The method of Claim 24, the advertisement signal comprising a markup language file that embeds or references advertisement files as the media file for display.

26. The method of Claim 24, the access to information comprising a link to the web site of the customer.

27. The method of Claim 24, further comprising accessing a customer table having market and demographic data associated with the identification of the customers, the market data including information identifying a target group for an advertisement from the customers, and revising the schedule table according to the market data.

28. A networked billboard system for displaying advertisements, the billboard system including a network controller in communication with at least one electronic billboard and a storage device, the system comprising;

means for accessing a schedule table for at least one of the electronic billboards, the table having an identification of customers for time slots over a list of dates;

means for locating an advertisement file corresponding to the customer identified in a time slot;

means for transmitting an advertisement signal to the billboard, the advertisement signal indicating a media file for display at the billboard based on the advertisement file
10 corresponding to the time slot; and

upon receipt of a request from a party, means for providing access to information of goods or services provided by the customer, the access provided to the requesting party.

29. The system of Claim 28, the network controller comprising a computer in communication with the at least one billboard.

30. The system of Claim 28, the advertisement signal comprising a markup language file that embeds or references advertisement files as the media file for display.

31. The system of Claim 28, the access to information comprising a link to the web site of the customer.

32. The system of Claim 28, further comprising means for accessing a customer table having market and demographic data associated with the identification of the customers, the market data including information identifying a target group for an advertisement from the customers, and means for revising the schedule table according to
5 the market data.

33. An executable program for placing advertisements in a network billboard system including a network controller in communication with at least one electronic billboard and a storage device, the program comprising;

a first source code segment for accessing a schedule table for at least one of the electronic billboards, the table having an identification of customers for time slots over a list of dates;

a second source code segment for locating an advertisement file corresponding to the customer identified in a time slot;

a third source code segment for transmitting an advertisement signal to the billboard, the advertisement signal indicating a media file for display at the billboard based on the advertisement file corresponding to the time slot; and

a fourth source code segment for providing access to information of goods or services provided by the customer upon receipt of a request from a party, the access provided to the requesting party.

34. The executable program of Claim 33 embodied on a computer readable medium.

35. The executable program of Claim 33, the advertisement signal comprising a markup language file that embeds or references advertisement files as the media file for display.

36. The executable program of Claim 33, the access to information comprising a link to the web site of the customer.

37. The executable program of Claim 33, further comprising a fifth source code segment for accessing a customer table having market and demographic data associated with the identification of the customers, the market data including information identifying a target group for an advertisement from the customers, and a sixth source code segment revising the schedule table according to the market data.

38. A computer data signal for placing advertisements in a network billboard system including a network controller in communication with at least one electronic billboard and a storage device, the data signal comprising;

a first signal segment for accessing a schedule table for at least one of the electronic billboards, the table having an identification of customers for time slots over a list of dates;

a second signal segment for locating an advertisement file corresponding to the customer identified in a time slot;

a third signal segment for transmitting an advertisement signal to the billboard, the advertisement signal indicating a media file for display at the billboard based on the advertisement file corresponding to the time slot; and

a fourth signal segment for providing access to information of goods or services provided by the customer upon receipt of a request from a party, the access provided to the requesting party.

39. The computer data signal of Claim 38, the advertisement signal comprising a markup language file that embeds or references advertisement files as the media file for display.

40. The computer data signal of Claim 38, the access to information comprising a link to the web site of the customer.

41. The computer data signal of Claim 38, further comprising a fifth signal segment for accessing a customer table having market and demographic data associated with the identification of the customers, the market data including information identifying a target group for an advertisement from the customers, and a sixth signal segment revising the schedule table according to the market data.

42. A programming method for a dynamic schedule application, the method comprising:

(a) accessing a schedule having scheduling information for an electronic billboard;

(b) accessing a storage folder of the billboard, the folder having media files that are
5 scheduled to be displayed;

(c) in the schedule, selecting a row of the current date and receiving a customer
identification from each cell in the selected row;

(d) locating the stored media files corresponding to the customer identification; and

(e) renaming the corresponding stored media files to reflect the scheduled sequence
10 of the media files for display at the billboard.

43. The programming method of Claim 42, further comprising transferring the
renamed corresponding stored media files to a local folder for quicker access, and restricting
further access to the schedule during steps (b) through (e) to prevent revisions to the
schedule during steps (b), (c), (d) and (e).

44. A programming method for a dynamic schedule application, the method
comprising:

(a) accessing a database having scheduling information for at least one electronic
billboard;

5 (b) identifying market data associated with a customer, the market data including
information identifying a target group for an advertisement from the customer;

(c) searching the database for an unassigned time slot available for the target group that matches the market data associated with the customer, the unassigned time slot corresponding to one of the at least one billboard;

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(d) assigning the unassigned time slot to the customer;

(e) locating a media file corresponding to the customer; and

(f) linking the media file to the assigned time slot for display at the one billboard according to the database.

45. A network billboard system comprising a billboard computer in communication with at least one billboard and a network server, the billboard computer including a central processing unit that processes data and operations required to run the billboard computer, a communication conduit for communication with the at least one billboard, a memory to store and buffer data used by the central processing unit, and a network interface that provides the communication medium with the network server, the network interface providing means for the billboard computer to retrieve language files from the network server that embed or reference advertisement files or programs according to a schedule, the communication conduit providing means for transmitting the scheduled advertisement files or programs to the at least one billboard for displaying an advertisement.

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46. The network billboard system of Claim 45, the network server being at least one computer that serves the language files to the billboard computer.

47. The network billboard system of Claim 45, the network server being a second billboard computer in communication with both a second billboard and said billboard computer.

48. The network billboard system of Claim 45, the network server including a web server and an application server.

49. The network billboard system of Claim 45, the network server accessing a schedule for the at least one billboard, the schedule having an identification of customers for time slots for future dates, the identification being an indicia of source for the scheduled advertisement files.

50. The network billboard system of Claim 45, the network server accessing a table for the at least one billboard, the table having descriptions of the advertisement files or programs for targeted advertisement.

51. A network billboard system, comprising a network server in communication with at least one billboard and a data source, the network server executing an application program that forwards advertising files to the at least one billboard, the network server retrieving language files from the data source, the language files embedding or referencing

